

Pest Update (August 24, 2016)

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Note: samples containing living tissue may only be accepted from South Dakota. Please do not send samples of dying plants or insects from other states. If you live outside of South Dakota and have a question, instead please send a digital picture of the pest or problem.

Available on the net at:

<http://sdda.sd.gov/conservation-forestry/forest-health/tree-pest-alerts/>

Any treatment recommendations, including those identifying specific pesticides, are for the convenience of the reader. Pesticides mentioned in this publication are generally those that are most commonly available to the public in South Dakota and the inclusion of a product shall not be taken as an endorsement or the exclusion a criticism regarding effectiveness. Please read and follow all label instructions and the label is the final authority for a product's use on a particular pest or plant. Products requiring a commercial pesticide license are occasionally mentioned if there are limited options available. These products will be identified as such but it is the reader's responsibility to determine if they can legally apply any products identified in this publication.

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Timely Topics

At this time of year I often receive requests on how to grow trees from seed. The two most common requests are **how to start walnuts and buckeyes**. These are actually fairly simple to grow from seed, squirrels do this routinely with great success considering the number of walnuts and buckeyes that germinate in

gardens and other prepared soils! The trick is to think like a squirrel. Harvest the seeds as soon as they drop and plant them this autumn while the soils are still warm. They will not initiate growth this fall, but germination improves if they are exposed to several weeks of warm temperatures before enduring the winter cold. The planting site should be well-drained soils, gardens really are the best, and cover the soil with a light mulch, straw or leaves that will not mat. Oak leaves are the best but do not use maple or basswood leaves, nor grass clippings as these tend to mat.



The only trick to growing these trees is removing the husk of the fruit to find the seed. This is not a particularly difficult task with buckeyes; the "buckeye" tends to be easily extracted from the fruit as it naturally splits in the fall, often while on the tree so it may be as simple as picking up the buckeye seeds (these are the size of a gumball with a hard coat and the characteristic dot or "eye") and planting them.



It is a little more difficult, and messy, with walnuts. The walnuts should be harvested while they are still firm but green – once they dry and harden they are near impossible to crack. First step, after gathering the walnuts is to change into clothes you don't plan on keeping as well as wear an old pair of gloves. Next find a hard surface to hammer open the husk. You might not want to use your sidewalk or driveway as the removing the

husk will produce a lot of dark, oily stain that does not easily wash off of most surfaces. Some people cover the surface with thick cardboard to reduce staining. Once the husk has been hammered apart and the seed extracted, let it dry for a day (and place it where the squirrels cannot find them) then plant. A good rule is to plant the seed; either walnut or buckeye, at a depth equal to three times its diameter. Finally sit back and wait till spring, and if the squirrels have not found your seeds you will probably be rewarded with 50 to 80% germination.





Verticillium wilt (*Verticillium dahliae*) is appearing again in eastern South Dakota. We seem to have years where we see few trees presenting symptoms and then a year or two where many trees are wilting from the disease. The symptoms can be confusing as many other stresses will cause similar patterns. The most common symptom is wilting and scorching leaves during the hottest and driest time of the summer. While these

symptoms can be due to drought, verticillium many only affect a single branch or portion of the canopy, rather than the entire tree wilting. Leaves in the affected area of the canopy may also be stunted.

The reason for the wilting is the sapwood becomes plugged and the affected branches will often have green (in maples) or brown (most other species) streaking in the sapwood. The streaking is often several feet or more down the branch from the wilting so check for the browning nearer the base of a wilting branch. Ash infected by verticillium wilt rarely show any streaking.

Since wilting can be due to many other agents, the only way to conclusively diagnosis verticillium wilt is to culture the pathogen from a branch presenting symptoms of the disease. The samples need to be cut from 1 to 2 inch diameter branches and should be about a foot long. The branches must be showing symptoms but not have died from the disease.

The presence of the disease does not necessarily mean the tree must be removed. Some trees live for decades with the disease, only having a branch or two die every now or then. Other trees may have the entire canopy wilt and the tree die the same season.

Verticillium is soil-borne so you cannot cure an infected tree and once the tree is removed the pathogen can remain up to 15 years in the soil. The only effective treatment is not to plant certain trees in soils where the pathogen is known to exist. The most common hosts in South Dakota are: catalpa, elms and maples. Other hosts include: ash, buckeye, coffeetree, corktree, and Russian-olive.

A common phenomenon with a little rain after a dry summer is flowering by some of our spring-flowering trees and shrubs. The flowering of crabapples, lilacs and other trees at this time of year is not a cause for concern. They will still be ready for winter on time, but since some of the flower buds are opening now there will be fewer blooms on the plant next spring.

E-samples



A common problem at this time of year is the **cottonwood petiole gall**. Many people have noticed that their cottonwood tree is dropping large number of yellow leaves. A closer inspection of these leaves will reveal small galls at the point where the leaf blade attaches to the petiole. The galls are the work of a small aphid that has finished its feeding at this time and no control is necessary. Raking

the fallen leaves will not reduce the change of an infestation next year as the galls are now hollow and devoid of insects.

The wooly oak gall is appearing on bur oaks across the state. The wooly



oak gall is a fuzzy white to tan globose to elongated gall that forms on the underside of the leaves. It is caused by the feeding activity of *Callifhytus lanata*, a small cynipid wasp. The galls do not harm the tree and photosynthesis is not disrupted. The galls usually appear on a tree for several years then disappear for another eight or ten year before the cycle begins again. There is no control for this interesting insect.

Samples received/site visits

Minnehaha County FL1600044

Why is our spruce dying?

The form noted that the tree was losing needles from the trunk outward and from the bottom to the top. The tree is about 30 feet tall. This age and symptom pattern is usually an indicator of cytospora canker, a fungal disease that causes the dieback and death of individual branches. The treatment for this disease is usually pruning away the dying branches though Cambistat, growth regulator, may be used to slow the disease on mature spruce.

However while the tree probably is infected with the canker, the only pest found on the sample was spruce bud scale. This is a sessile, sucking insect that resembles a small bud along the twig. There were quite a few on the twig and these may also be responsible for the decline of the trees. Treatment for the scale is during late spruce, when lindens are blooming and insecticides containing carbaryl are generally effective.

Minnehaha County FL1600045
brown?

Why are the tips turning

Usually browning or discolored tips on a spruce are due to a root stress, either too dry or too wet. There were no signs of pests on the sample.

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